

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Amendments to Part 4 of the)	PS Docket No. 15-80
Commission's Rules Concerning)	
Disruptions to Communications)	
)	
New Part 4 of the Commission's Rules)	ET Docket No. 04-35
Concerning Disruptions to)	
Communications)	
)	
The Proposed Extension of Part 4 of the)	PS Docket No. 11-82
Commission's Rules Regarding Outage)	
Reporting to Interconnected Voice Over)	
Internet Protocol Service Providers and)	
Broadband Internet Service Providers)	

COMMENTS OF AT&T

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I. INTRODUCTION & SUMMARY

AT&T Services, Inc., on behalf of its operating affiliates (collectively, AT&T), respectfully urges the Commission to reject its proposed rules in the *Further Notice*.¹ This *Further Notice* is the third set of new or modified network outage reporting rules proposed in five years—this time, right on the heels of the last set of new reporting obligations just adopted in May. Now is not the time to impose a slew of costly and complex new reporting burdens, even before the new rules adopted in May have been implemented. In that order, the Commission made some improvements to the rules that will make the network outage reporting regime better (*e.g.*, changing reports for major transport outages to the OC-3 level rather than the outdated DS-3 level and adopting a standardized method to calculate the number of users “potentially affected” in a wireless outage). AT&T commends the Commission for those incremental changes. In other cases, the Commission unnecessarily increased reporting burdens on providers (*e.g.*, reducing the reporting period for simplex events). But for better or worse, all new and modified rules require significant efforts and resources to implement including system and network changes as well as personnel training.

As providers work to make the changes needed to report under the new rules, the Commission already proposes massive new network outage reporting. As the Commission knows, AT&T has long disputed the Commission’s cost estimates for network outage reporting and did again in the lead up to the order in May. AT&T believes history has vindicated its assessments. But regardless, in this case, the Commission first must allow the already-adopted

¹ See *Amendments to Part 4 of the Commission’s Rules Concerning Disruptions to Communications; New Part 4 of the Commission’s Rules Concerning Disruptions to Communications; The Proposed Extension of Part 4 of the Commission’s Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers*, PS Docket No. 15-80; ET Docket No. 04-35; PS Docket No. 11-82, Report and Order, *Further Notice of Proposed Rulemaking*, and Order on Reconsideration, 31 FCC Rcd 5817 (2016) (“*2016 Network Outage Reporting Order*” or “*Further Notice*”).

rules to be implemented to see how effective they really are at producing the purported benefits, and whether the Commission's expectations about costs and the magnitude of increased reporting are correct before considering more.

But if the Commission goes forward with new rules here or in the future, the Commission should be guided by fundamental principles for new or modified network outage reporting requirements, recognizing that all data collection and reporting requirements impose costs. First, the reports should be narrowly tailored to precisely address a legitimate regulatory purpose of the rules. Part 4 states that its purpose is “reporting of disruptions to communications and to the reliability and security of communications infrastructures.”² Network outage reporting should never require superfluous and unnecessary reports on a data “fishing expedition,”³ or worse, to pursue some other political or regulatory agenda. Such reporting burdens impose costs on providers—and ultimately consumers—and make the Commission's legitimate, limited role in network oversight inefficient and impractical to manage.

Second, network outage reports should focus exclusively on customer impact, with emphasis on reliable access to emergency services. Proposals for reporting for non-customer-affecting events should be discarded. They simply do not serve the appropriate regulatory purpose of network outage reporting.

Third, all reporting must be based on bright-line standards that are easily administered for providers. Bright-line standards for reporting minimize already excessive regulatory burdens,

² 47 C.F.R. § 4.1(a).

³ Statement of Commissioner Michael O'Rielly, Concurring in Part, Dissenting in Part, *Further Notice*, 31 FCC Rcd at 5948.

improve compliance, and reduce over-reporting out of abundance of caution that burdens both providers and the Commission.⁴

In the comments below, AT&T demonstrates that the Commission's new proposed rules fail these tests. The Commission proposes sweeping and unprecedented new reporting rules for broadband Internet access services (BIAS) and dedicated services. This proposal fails any credible cost-benefit analysis. As AT&T shows, the Commission exaggerates the purported benefits of its proposed outage reporting for BIAS and dedicated services (including its own role in the process) while far understating the costs and complexities. But to the extent the Commission adopts rules anyway, it must modify the proposed coverage, metrics and thresholds to make reporting workable for providers and the Commission itself. In no event should it adopt its misguided approach to apply quality of service (QoS) metrics for BIAS or dedicated services, or reporting of call failures in the radio and local access networks—neither of which is designed or intended to measure customer-affecting outages. And among a number of ill-advised proposals, one stands out from the rest: the proposal to require BIAS providers to serve as central reporters for all broadband network outages, even those beyond the boundaries of the network facilities the provider owns, operates, leases or uses. This proposal is discriminatory and unworkable for a variety of reasons discussed below and should be rejected outright.

The Commission yet again considers whether and how to grant states access to the confidential commercial data and highly sensitive national security information contained in providers' network outage reports. AT&T reiterates its long-held objections to granting this access, but if the Commission nonetheless proceeds, AT&T recommends a set of stringent

⁴ A fourth principle that the Commission should always apply in adopting new rules is to allow ample time for implementation to provide for required internal process changes including systems upgrades, deployment of monitoring in the network, and appropriate training of personnel.

safeguards that, at a minimum, must be enacted. Furthermore, AT&T contends that the existing interconnected VoIP outage reporting rules should not be changed at this time (unless the reporting process is further streamlined). Finally, the proposals for geography-based wireless outage reporting and expanded reporting of outages affecting critical aviation information facilities are premature, at best.

One inquiry—a question more than a proposal—is worth pursuing. Specifically, the Commission should significantly streamline the reporting process for all services—to align them with the existing deadlines for outage reporting for interconnected VoIP services, or better yet, reduce the reporting to Final Reports only. This approach would provide ample, timely information for the role the Commission plays while reducing unnecessary burdens to allow providers to focus their attention on what should be the highest priority—restoring service to customers.

With the notable exception of streamlining the reporting process, none of the Commission’s proposed rules are narrowly tailored to a legitimate regulatory need; are focused on customer-affecting outages; and provide bright lines for providers to follow. For these reasons, other than process streamlining, the Commission should reject the rules it proposes in this *Further Notice*.

II. DISCUSSION

A. The Commission Should Not Expand The Flawed Part 4 Outage Reporting Regime to Broadband Services.

1. There is No Regulatory Need for Updated Broadband Network Disruption and Outage Reporting.

The Commission should not extend Part 4 network outage reporting obligations⁵ to BIAS and dedicated services absent a showing of regulatory necessity in the face of market failure (which it cannot show). Fundamentally, the Commission misunderstands the nature of these services and the market for them. Accordingly, it exaggerates the purported benefits of its proposed outage reporting for BIAS and dedicated services while far understating the costs and complexity to implement and maintain so many parallel but different reporting regimes.

As an initial matter, the Commission posits that regulatory intervention is warranted because broadband networks are somehow more vulnerable to disruption and attack at physical and application layers in ways that make broadband networks less resilient than the traditional PSTN.⁶ Nothing could be farther from the reality of modern network engineering. Broadband networks are not more susceptible to outages than the TDM-based network. The robust and dynamic engineering of broadband networks enables redundancy and resiliency beyond the bounds of the static PSTN.⁷ Indeed, well-engineered broadband networks allow for higher order redundancy (N + 1 architectures, rather than just a single redundant node) in a more economic fashion, allowing greater investments in resiliency and network security. Based on this misplaced notion and anecdotes about isolated outages, the Commission concludes that it needs

⁵ 47 C.F.R. Part 4.

⁶ See *Further Notice* at para. 102.

⁷ See Reply Comments of AT&T Inc., PS Docket No. 11-82 at 6 (Oct. 7, 2011) (2011 AT&T Reply).

expanded outage reporting to include BIAS and dedicated services.⁸ The very foundation of this rulemaking aimed at implementing a plethora of new reporting burdens is unsound.

Moreover, the Commission entirely discounts the role of competition in effectively ensuring high-quality service for broadband consumers.⁹ Indeed, history has demonstrated that competition is the most effective regulator of network reliability and quality. In a competitive free market, as is the case here, competitive pressures guarantee efficient and well-run networks that serve the needs of their customers. Providers that cannot provision high-quality, reliable services their customers demand, including 911 calling, will quickly see customers flee to competitors willing to make the investments needed to ensure reliability. As a direct result, AT&T and other providers are highly motivated to minimize outages and disruptions to the network.¹⁰ The market drives innovative solutions and even cooperation among competitors to address any problems that crop up. As AT&T has previously explained, “many providers already voluntarily participate in public-private partnerships to share information and to promulgate best practices in large part because it is in their competitive self-interest to ensure that they develop and implement procedures and practices that make their networks as reliable as they can realistically be.”¹¹ There is little (if any) incremental benefit of outage reporting beyond the results driven by market forces. It should be fundamental that regulation supplants free-market forces only when it can be shown that there is a market failure requiring regulatory intervention. No such failure exists for broadband.

⁸ See *Further Notice* at paras. 102-03.

⁹ See Comments of AT&T Inc., PS Docket No. 11-82 at 11-14 (Aug. 8, 2011) (2011 AT&T Comments); 2011 AT&T Reply at 5-6.

¹⁰ For example, dedicated service customers often have quality of service standards with associated bill credits included in provisions of the tariffs or contracts under which they take service.

¹¹ 2011 AT&T Comments at 11.

Finally, the value added by the Commission in outage situations is limited. AT&T has repeatedly recognized the Commission's efforts to bring industry together to coordinate and collaborate on network reliability issues.¹² Over decades, AT&T has built a respectful, constructive working relationship with Commission staff to report and resolve network outages, primarily through the Commission's after-action analysis to identify industry trends and facilitate industry coordination.¹³ Despite good intentions, the Commission overstates its role (and therefore the value of outage reporting) in bringing industry-led changes to minimize network outages and disruptions.¹⁴ There is no dispute that every network, no matter how well engineered, will experience some disruptions in operations from time to time. There is also no evidence, or even reason to believe, that providers will not conduct a root-cause analysis and take steps to address any issues giving rise to a service disruption without Commission oversight.¹⁵ It is, candidly, in the provider's financial and commercial interest to fix outages quickly and prevent them from recurring.

At the same time, the Commission habitually underestimates costs of network outage reporting. Although the Commission blithely dismissed AT&T's most recent cost estimates,¹⁶ AT&T has previously provided record evidence that demonstrates that the Commission routinely underestimates costs of outage reporting by orders of magnitude.¹⁷ AT&T expends significant

¹² See, e.g., Comments of AT&T, PS Docket No. 15-80; ET Docket No. 04-35 at 2-3 (July 16, 2015) (2015 AT&T Comments).

¹³ See, e.g., *id.* In addition, AT&T takes a leadership role in making industry improvement recommendations based on this analysis in forums such as the Network Reliability Steering Committee (NRSC) and through best practice development in the FCC's Communications Security, Reliability and Interoperability Council (CSRIC).

¹⁴ See, e.g., *Further Notice* at para. 104; see also 2011 AT&T Comments at 9-10.

¹⁵ See 2011 AT&T Comments at 14.

¹⁶ See *2016 Network Outage Reporting Order* at para. 90.

¹⁷ See, e.g., 2015 AT&T Comments at 5-9; Reply Comments of AT&T, PS Docket No. 15-80; ET Docket No. 04-35 at 3, 5 (July 31, 2015) (2015 AT&T Reply); 2011 AT&T Comments at 14-17; 2011 AT&T Reply at 8.

resources on outage reporting including systems, personnel, and other corporate services functions. Every new or modified reporting requirement only increases costs and administrative complexity.¹⁸ More importantly, repeated cycles of implementation and ongoing unneeded reporting diverts resources, including technical experts, from what should be the company's highest priority—service restoration.¹⁹

On balance, new outage reporting burdens are simply unjustifiable given limited benefit and disproportionate cost. The case for expanded reporting here is unpersuasive. The Commission should shelve this rulemaking without further consideration.

2. The Commission Should Not Require Outage Reporting for BIAS and Dedicated Services. But If It Does, It Should Modify the Coverage of the Reporting Requirements.

The Commission should reject its proposed outage reporting rules for BIAS and dedicated services.²⁰ As discussed above, the Commission cannot justify expanding outage reporting as it has proposed here. But even if that were not true, extending an already flawed

¹⁸ See 2015 AT&T Comments at 17 (“Each time the Commission scraps its 911 reporting metric, it imposes significant costs on the reporting entities, which must implement IT and ordering, provisioning, and maintenance systems changes in order to begin tracking the data in the manner required by the latest version of this rule. Carriers also must re-train their employees on the new reporting metrics, particularly since these employees may have to track the new data on a manual basis, at least until systems work that might automate the collection is complete. All of these items take time and, of course, resources.”).

¹⁹ See *Amendment of Part 63 of the Commission's Rules to Provide for Notification by Common Carriers of Service Disruptions*, CC Docket No. 91-273, Order on Reconsideration, 10 FCC Rcd 11764, para. 8 (1995) (*Part 63 Reconsideration Order*) (recognizing that “burdensome reporting requirements that provide[] little useful information and might interfere with attempts to restore service [are] in no one's interest.”).

²⁰ To the extent that the Commission's proposal with regard to BIAS is based on its authority under Title II, see *Further Notice* at para. 201, AT&T continues to appeal the Commission's order finding that BIAS is a telecommunications service subject to Title II regulation. See generally *AT&T Pet. for Panel Reh'g and Reh'g En Banc, United States Telecom Ass'n v. FCC*, 2016 U.S. App. LEXIS 10716 (D.C. Cir. June 14, 2016) (No. 15-1063); *Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601 (2015) (*2015 Open Internet Order*).

system²¹ to these two categories of services serves no purpose and may even be counterproductive.

The rules, as proposed, are a massive overreach of reporting obligations that will unnecessarily burden providers and the Commission alike. Today, the existing reporting regime generates far too many reports on unnecessarily tight deadlines.²² By expanding the reporting to BIAS and dedicated services (to the extent not already covered), it would be a massively complex and costly undertaking to manage so many reports, many of which would not be major failures warranting government attention but would mostly be routine outages in the normal course of network operations—many might not even affect customers.²³ To the extent that these outages are out of the ordinary, they are highly likely to be captured by one or more of the existing rules. And, we should not underestimate the burden this will put on the Commission. It is questionable whether the Commission even has the resources to process the massive volume of reports that would be generated by the proposed coverage and metric/threshold rules (discussed below). Rather than focusing on service restoration (which the Commission recognizes should be a carrier's highest priority), providers will be busy filing and managing massive numbers of reports under penalty of non-compliance.²⁴ Rather than focusing where the Commission can

²¹ See, e.g., 2015 AT&T Comments at 10-11; 2011 AT&T Comments at 10; 2011 AT&T Reply at 4-5.

²² See 2011 AT&T Reply at 4.

²³ See *Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications, New Part 4 of the Commission's Rules Concerning Disruptions to Communications*, PS Docket No. 15-80, ET Docket No. 04-35, Notice of Proposed Rulemaking, Second Report and Order and Order on Reconsideration, 30 FCC Rcd 3206 (2015) (2015 NPRM) (seeking comment on the DS3-based standard because those reports appeared to be “minor disruptions unlikely to have a significant impact on communications or jeopardize public safety. Moreover, the reporting of minor outages such as these inundates the Bureau with information that may not be sufficiently useful to justify the attendant reporting burden.”).

²⁴ See, e.g., *Verizon*, File Nos. EB-SED-14-00017189, EB-SED-14-00017676, EB-SED-14-00017373, Order, 30 FCC Rcd 2185 (EB 2015) (fining Verizon \$3.4 million for failing to comply with Part 4 of the Commission's rules).

actually add value, Commission staff will be busy wading through the huge influx of (mostly unimportant) reports filed by providers.²⁵

To the extent the Commission adopts network reporting rules for BIAS, it should carve out and exempt wireless BIAS because the proposed rules would be duplicative, costly, and complex.²⁶ Just this past May, the Commission adopted much-needed updates to the methodology for calculating the number of potentially affected users in wireless outages and carriers are still in the process of implementing these changes.²⁷ Layering new sets of regulations, with overlapping requirements and staggered deadlines, needlessly increases the complexity of implementation and ongoing management of reporting.²⁸ The Commission should allow recent changes to be implemented and allow time for evaluation of their utility (and cost) before adopting yet another batch of reporting burdens. Moreover, the *Further Notice* seemingly ignores the fact that there is significant overlap between the proposed rules for BIAS (to the extent they are applied to wireless) and the CMRS outage reporting rules already in place.²⁹ As required by the existing rules, AT&T already reports on outages affecting wireless subscribers, including outages of data service. The Commission's proposed approach would largely cover the same services, creating unnecessary costs and increasing reporting complexity, without any demonstrated incremental benefit.

²⁵ We note that the existing rules generate a significant number of reports filed out of an abundance of caution that are eventually withdrawn because the events are ultimately deemed non-reportable. See 2011 AT&T Comments at 20. The proposed rules would only magnify that problem, particularly given that the proposed metrics are too granular and proposed thresholds are too low.

²⁶ Many rules proposed here would result in duplicative reporting requirements for the same outages. See 5 C.F.R. § 1320.5(d)(1)(ii) (requiring agency to demonstrate to the Office of Management and Budget (OMB) that it has taken every reasonable step to ensure that the proposed information collection "is not duplicative of information otherwise accessible to the agency.").

²⁷ See 2016 Network Outage Reporting Order at para. 35.

²⁸ See, e.g., 2015 AT&T Comments at 17.

²⁹ See 47 C.F.R. § 4.9(e).

Furthermore, the Commission should reject new and additional reporting for dedicated services—much of which is already captured by the Commission’s existing network outage reporting rules. Duplicative reporting imposes costs without any corresponding benefit. As an initial matter, when a customer purchases a dedicated circuit, it does not generally inform AT&T of the intended use of the circuit, and even if it did, AT&T does not have systems in place to flag these circuits if they are dedicated to 911 services. And, to the degree that a dedicated circuit is being used for Next Generation 911 (NG911), the responsibility to report any outage must fall on the NG911 provider that has visibility into the needed information to assess the situation and determine applicability of the reporting rules.³⁰ Moreover, to the extent the Commission granted any regulatory relief in the *2016 Network Outage Reporting Order* by increasing the major transport facility outage reporting threshold to OC-3 level circuits, that relief is negated and swamped by the massive new requirements proposed here for dedicated services.³¹ If, however, the Commission moves forward, the proposed rules must be modified to be more workable for the industry—and for the Commission itself. Specifically, any new reporting in this area must have a significantly higher circuit threshold than the 1.5 Mbps as proposed.³² AT&T believes that, for network outage reporting purposes only, the minimum workable threshold is 10 Gbps given that most router connections will be 10 Gbps or higher. Anything less will give little useful insight into network operations while generating massive numbers of new reports that will overwhelm providers and the Commission.

³⁰ See Letter to Marlene H. Dortch, Secretary, FCC, from NENA, The 9-1-1 Association, *et al.*, PS Docket Nos. 14-193 & 13-75, Att. at 12 (filed Jan. 29, 2016).

³¹ See *2016 Network Outage Reporting Order* at para. 17.

³² See *Further Notice* at para. 115.

But one reporting proposal is simply untenable: Using BIAS providers as a central reporting point for all broadband network outages.³³ Specifically, as a complete reversal of decades-old outage reporting practice, the Commission proposes to make broadband providers responsible for providing reports about facilities that they do not own, operate, lease, or use. It is simply incredible that after decades of statements about the critical nature of this data, both regarding competitive sensitivity and national security implications, that the Commission would propose to make BIAS providers responsible for collecting and compiling this data—for competitors no less. First, the enormous cost of foisting an FCC responsibility on a provider is totally unjustifiable under any cost-benefit analysis. If the Commission is not willing or able to collect and collate the data, it should not require the reporting the first place. Second, it is highly dubious that the Commission would have any legal authority to compel a private party to take on a government responsibility in that way. Third, the practical reality is that, to some extent or another, broadband providers are likely competitors with the other reporting entities. Expecting broadband providers to routinely provide data that the Commission acknowledges is competitively sensitive to their competitors is simply irrational. Fourth, the provider serving as the central reporter would have no authority to compel cooperation in reporting and cannot be responsible, including with potential enforcement liability, for timely or accurate reporting of another provider over which it has no control.³⁴ Therefore, if the Commission ultimately decides that broadband network outages should be reportable, the Commission should clarify that,

³³ See *Further Notice* at para. 112; see also Statement of Commissioner Ajit Pai, Concurring in Part and Dissenting in Part, *Further Notice*, 31 FCC Rcd at 5944 (“The Further Notice even suggests that broadband providers will be responsible for providing reports about facilities that they do not own, operate, lease, or use. This is a marked departure, and a bizarre distraction, from the goals of our outage reporting regime.”); Statement of Commissioner Michael O’Rielly, Concurring in Part, Dissenting in Part, *Further Notice*, 31 FCC Rcd at 5947.

³⁴ In fact, such a construct would likely create disincentives for such third-party competitors to cooperate with a central-reporting provider, knowing that the latter would be responsible for non-compliance with the Commission’s outage reporting rules.

consistent with current rules, providers at no time are responsible for reporting network outages beyond the boundaries of the network facilities that they own, operate, lease or use.³⁵ The Commission should summarily reject this proposal once and for all.

3. The Commission Should Significantly Streamline the Part 4 Reporting Process for All Services.

AT&T commends the Commission for seeking comment on a streamlined, two-step reporting process³⁶ and strongly supports an approach to harmonize the outage reporting requirements for cable, wireline, wireless (together, “Legacy Services”), interconnected VoIP, and broadband (if adopted).³⁷ Specifically, the Commission should extend the current deadline for Notifications applicable to Legacy Services providers from 120 minutes to at least 24 hours (or maybe longer) for non-911 special facilities and from 120 minutes to 240 minutes for 911 special facilities.³⁸ Additionally, the Commission should eliminate the requirement for Legacy Service providers to submit Initial Reports within 72 hours of discovery and, instead, require all providers to file Final Reports only.³⁹ If adopted, these changes would simplify the reporting process for all providers, reduce the reporting burden on providers, and enable providers to focus on resolving outages instead of spending critical time preparing Notifications and Initial Reports.

When the Commission adopted the interconnected VoIP reporting rules in 2012 with their different reporting structure and deadlines, the Commission concluded that eliminating the

³⁵ See 2015 AT&T Comments at 10.

³⁶ *Further Notice* at para. 127.

³⁷ See 2015 AT&T Reply at 13-15; 2011 AT&T Comments at 20-22; 2011 AT&T Reply at 8-9.

³⁸ See 2015 AT&T Reply at 13-14.

³⁹ See *id.* at 14.

Initial Report would “reduce the [VoIP] providers’ workloads”⁴⁰ and that “[f]inal reports would still give the Commission the opportunity to obtain the full details within the same timeframe as it does so today.”⁴¹ Of course, those conclusions are equally applicable to all services.

Similarly, the Commission justified a lengthier Notification period for interconnected VoIP providers in 2012 because “data networks operate differently than voice networks, and the cause of some degradations of service may not be as clearly identifiable.”⁴² The Commission has since acknowledged that the entire communications industry is migrating to IP-based networks,⁴³ so again, the Commission’s rationale supplied in 2012 should be extended to all other providers.

At the same time, aligning all reporting requirements in this way would continue to fulfill the needs of the Commission to ensure “the protection of life and property through robust, functioning, reliable, resilient, and secure communications networks.”⁴⁴ As AT&T has repeatedly noted, the Commission performs a valuable role in facilitating industry efforts to ensure reliable and resilient services and networks.⁴⁵ For example, the Commission has developed an effective and efficient means of disseminating aggregated outage data to the NRSC, which uses such data to develop best practices followed by communications providers. The Commission staff’s commitment and involvement are both helpful and appreciated. AT&T values the long-standing, constructive working relationship it has with the Commission on

⁴⁰ *The Proposed Extension of Part 4 of the Commission’s Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers*, PS Docket No. 11-82, Report and Order, 27 FCC Rcd 2650, para. 96 (2012) (*2012 Network Outage Reporting Order*).

⁴¹ *Id.*

⁴² *Id.* at para. 95.

⁴³ *See, e.g., Technology Transitions et al.*, GN Docket No. 13-5 *et al.*, Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, 29 FCC Rcd 1433 (2014).

⁴⁴ *2016 Network Outage Reporting Order* at para. 1.

⁴⁵ *See, e.g., AT&T 2015 Comments* at 2.

network outage reporting issues. For decades, AT&T has worked diligently, in good faith, to help the Commission “ensur[e] the reliability and resiliency of the Nation’s communications system, and in particular [to strengthen] the Nation’s 911 system.”⁴⁶

But as discussed above, the Commission overstates its role in network outage events.⁴⁷ Despite the Commission’s repeated statements in the *Further Notice* about its need for “situational awareness,” suggesting a critical, immediate need for outage information,⁴⁸ the Commission plays no role in the process of restoring service to customers. The value of these demanding deadlines must be considered in the context of how the Commission actually uses the data.⁴⁹ The practical results of the network outage reporting process cannot demonstrate that the present level and nature of those rules is necessary to achieving those and similar results. Rather, Notifications and Initial Reports divert critical resources, including technical expertise, from restoration efforts in order to ensure compliance with an unnecessary and arbitrary regulatory deadline.⁵⁰ The costs, including the opportunity cost of restoring service as fast as possible, cannot be justified by the benefits derived from the Commission’s involvement in after-action analysis, normally consisting of an annual meeting. It is just not that time sensitive. As a

⁴⁶ 2015 NPRM at para. 6.

⁴⁷ See Section II.A.1 above.

⁴⁸ See *Further Notice* at paras. 8, 26, 27, 35, 37, 55, 60, 65, 92, 93, 110, 123, 161, 176.

⁴⁹ For any new information collection, the Commission must certify to OMB that a proposed information collection “has practical utility,” which OMB defines as:

the actual, not merely the theoretical or potential, usefulness of information to or for an agency, taking into account accuracy, validity, adequacy, and reliability, and the agency’s ability to process the information it collects (or a person’s ability to receive and process that which is disclosed, in the case of a third-party or public disclosure) in a useful and timely fashion . . . In the case of recordkeeping requirements . . . ‘practical utility’ means that actual uses can be demonstrated. 5 C.F.R. § 1320.3(l).

⁵⁰ See 2011 AT&T Comments at 21 n.66.

practical matter, only the 30-day Final Report contributes to the development of best practices.⁵¹ And thus, the proposed reporting process more than meets the Commission's needs.

In sum, network outage reporting burdens should be carefully tailored to the regulatory need in order to minimize costs and eliminate obstacles to efficient restoration. A streamlined, two-step process for interconnected VoIP, Legacy Services, and if necessary, broadband does exactly that.

Finally, the Commission should not adopt any changes to reporting related to unintended changes to software or firmware or unintended modification to a database.⁵² These changes are already captured by the rules today. Many of these issues may get classified as procedural errors under the existing rules and it would likely be highlighted in the details of the report if the outage was the result of one of these changes. None of this is unique to broadband as TDM network elements also include software, firmware, and various databases. And, there is little information to be gained for reporting on incidents that do not create full outages. It is unclear what, if any, value to the Commission there would be in reporting of unexpected changes in these components of the network. Even the Commission's example of a distributed denial of service attack should get classified under the cyber-security classification if such incident created an outage of sufficient size to trigger the thresholds.⁵³ Therefore, this proposal, if adopted, would generate redundant reporting and the Commission should refrain from making these proposed changes.

⁵¹ See *id.* at 20.

⁵² See *Further Notice* at para. 122.

⁵³ See *id.* at para. 124.

4. If the Commission Adopts Broadband Outage Reporting, It Should Significantly Modify Its Proposed Metrics and Thresholds. In No Event Should the Commission Adopt Performance Degradation Reporting.

For the reasons discussed above, the Commission should reject any proposed outage metrics and thresholds for BIAS and dedicated services. But if the Commission is nevertheless committed to broadband outage reporting, AT&T recommends that the Commission significantly modify its proposals in the *Further Notice*.

Hard Down Outages. In the event the Commission proceeds with outage reporting rules for BIAS despite well-founded industry opposition, it should modify the approach proposed in the *Further Notice*. Rather than the throughput-based threshold,⁵⁴ AT&T recommends reporting for BIAS hard-down outages that are: (1) of at least 30 minutes duration; (2) of a non-redundant Internet Protocol switching element that the provider owns, operates, leases, or otherwise utilizes; and (3) that potentially isolates subscribers' Internet connectivity for at least 900,000 user minutes.⁵⁵ The throughput-based threshold is unnecessarily complicated⁵⁶ given various network configurations, including design and bandwidth. It would be more costly to implement than the already-familiar 900,000 user minute threshold. The threshold AT&T recommends offers a number of benefits over the throughput-based threshold. Specifically, the user-minute threshold is less burdensome to apply operationally, is competitively neutral, and provides usable outage data. Outage reporting of this nature would clearly capture the magnitude of service

⁵⁴ See *id.* at para. 130.

⁵⁵ The 900,000 user minutes should be interpreted as affecting at least 30,000 subscribers with any level of Internet service for at least 30 minutes.

⁵⁶ We note that even the Commission has had difficulty applying its proposed threshold. In the example provided, a 1 Tbps facility out of service for 45 minutes generated an outage of 45,000 Gbps user minutes, exceeding the proposed threshold of 22,500 Gbps user minutes threshold. See *Further Notice* at para. 130. But the Commission is seeking comment about a 1 Gbps facility lasting for only 30 minutes. That 1 Gbps facility would only generate an outage of 30 Gbps user minutes, nowhere close to the 22,500 Gbps user minute threshold and in fact, would take 375 hours to exceed the proposed 22,500 Gbps user minute threshold.

outage impacts to broadband customers. Moreover, this approach would be a bright-line rule that providers already understand well, making compliance far less complicated.

Performance Degradation. The Commission should focus (if at all) on actual outages—complete loss of service. It should not require covered broadband providers to report on losses of “generally useful availability and connectivity.” This is a vague concept that is not easily measurable through narrowly tailored, bright-line rules—least of all the Commission’s proposed throughput, packet loss, and latency metrics, which are ineffective measures of customer-affecting degradation. In 2012, the Commission wisely rejected similar proposals, concluding that focusing on actual outages was simpler, consistent with the outage reporting regime, and an appropriate balance of costs and benefits. According to the Commission, even without these metrics, it would have “a clear view into E9-1-1 compliance” and would “advance the goals of working with industry to improve performance.”⁵⁷ Nothing has changed that should lead this Commission to a different conclusion for broadband services today.

Throughput, packet loss and latency are quality of service (QoS) standards that are not appropriately used as outage metrics, for “loss of generally useful availability and connectivity” or otherwise.⁵⁸ Variations in throughput and some degree of packet loss and latency are inherent in all IP networks. Networks engineered to eliminate them would be highly inefficient and prohibitively expensive. Rather, the beauty of the Internet Protocol is that IP networks can be engineered to ensure that throughput variations, packet loss, and latency rarely affect customers while maintaining high levels of flexibility, efficiency, and QoS. Even in periods when these metrics are affected, priority protocols ensure that time-sensitive voice packets go through while

⁵⁷ 2012 *Network Outage Reporting Order* at para. 90.

⁵⁸ See AT&T 2011 Comments at 23-24; AT&T 2011 Reply at 7-8.

less sensitive traffic, such as email, may be delayed. Moreover, BIAS is provided over “best efforts” networks that do not carry QoS guarantees at all. Applying QoS standards would have little meaning in that context and would provide little relevant information (if any) to the Commission about performance degradation.⁵⁹

As AT&T and others have explained, these service quality metrics for IP-enabled networks are akin to measuring static and noise in legacy systems and, therefore, would not actually relate to whether a customer is able to use the service.⁶⁰ Moreover, conditions outside the control of the broadband provider can cause or contribute to throughput variations, packet loss, and latency.⁶¹ Notably, any significant impact on throughput, packet loss, and latency is often due to major events, such as fiber cuts that reduce IP trunk capacity. But such events nearly always trigger outage reporting today under the major transport facility, VoIP, or other network outage reporting rules.

It is also important to note that all of these QoS metrics (throughput, latency, and packet loss) are point-to-point measurements, not general network measurements.⁶² It would generally be impossible to measure these QoS metrics from every network endpoint (including customer endpoints) to every network element involved in BIAS because this becomes an N-Squared problem⁶³ and would therefore be impossible to provide. In addition, these metrics can change

⁵⁹ See 2011 AT&T Comments at 25-26; 2011 AT&T Reply at 8.

⁶⁰ See 2011 AT&T Reply at 7; Comments of the Alliance for Telecommunications Industry Solutions, PS Docket No. 11-82 at 11 (Aug. 8, 2011).

⁶¹ See 2011 AT&T Reply at 7.

⁶² See 2011 AT&T Comments at 28; 2011 AT&T Reply at 7; *see also* Comments of Verizon and Verizon Wireless, PS Docket No. 11-82 at 21 (Aug. 8, 2011) (“These [QoS] measurements only have relevance in the context of the specific end points being measured. But packet-based communications on the Internet could occur between virtually limitless points of interest for individual end user communications, and these measurements can vary significantly depending on each consumer’s destination end point. Accordingly, collection of these metrics over the measured path may have no relevance to any particular end user’s communications.”).

⁶³ See Sean Convery, *Network Security Architectures: Expert Guidance on Designing Secure Networks* 364 (2004).

dramatically over time so even limiting the measurements from specific points in the core network to other points in the network may not provide a view of any effect on end users.

And, these metrics are even more problematic for wireless BIAS. Data on throughput, packet loss, and latency in the wireless context will be misleading and result in over-reporting because they will capture events related to coverage and interference rather than outages. This reporting would be even more difficult to implement for wireless networks that are dynamically managed to optimize performance for users. For all of these reasons, these measures are useless for developing network best practices—the primary benefit of the Commission’s network outage reporting.⁶⁴

Finally, it is not even clear how the Commission would use this information if reported. As discussed in more detail below, the *Further Notice* suggests that the Commission’s “approach of presumed confidentiality may need to evolve as networks, *and consumer expectations about transparency*, also evolve.”⁶⁵ That is a curious thing to say when talking about potential national security targets.⁶⁶ That language could lead one to wonder whether this proceeding is really about network reliability at all. Or, perhaps the Commission’s agenda to regulate the Internet as a public utility is creeping in here.⁶⁷ If so, adopting the proposed performance degradation metrics under the guise of public safety and homeland security fails the principles that should guide this proceeding and is contrary to the public interest.

⁶⁴ See 2011 AT&T Reply at 7.

⁶⁵ *Further Notice* at para. 145 (emphasis added).

⁶⁶ See *New Part 4 of the Commission’s Rules Concerning Disruptions to Communications*, ET Docket No. 04-35, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 16830, para. 3 (2004) (*2004 Network Outage Reporting Order*).

⁶⁷ See Statement of Commissioner Michael O’Rielly, Concurring in Part, Dissenting in Part, *Further Notice*, 31 FCC Rcd at 5948 (“This suggests that this requirement would be used to further bolster the Net Neutrality transparency rule and/or as a means for the Enforcement Bureau to play a game of gotcha.”); see also *2015 Open Internet Order*, 30 FCC Rcd 5601.

For all of these reasons, the Commission should conclude, as it did in 2012, that the public interest is not served by adopting expensive, complex, and ineffective reporting metrics to try to capture “generally useful availability and connectivity.”

5. The Commission Should Not Grant Wider Access To The Highly Sensitive Network Outage Reports But If It Does, It Should Adopt Strict Safeguards.

AT&T’s objections to granting states access to network outage reporting are well documented in the Commission’s proceedings.⁶⁸ These concerns are no less applicable to the proposed outage reports for BIAS and dedicated services. Given that the nature of the data collected involves both confidential commercial data and highly sensitive information concerning facilities that are a part of the “Nation’s critical information infrastructure,” it is imperative that any information collected by the Commission be treated as confidential.⁶⁹ Disclosure of this information, even if inadvertent, carries a high risk of dire consequences to critical broadband infrastructure.⁷⁰ In the *Further Notice*, the Commission suggests that its “approach of presumed confidentiality may need to evolve as networks, and consumer

⁶⁸ See 2015 AT&T Comments at 25-26 (“For example, states cannot guarantee that carriers’ reports would not be subject to public information requests. The inability to make that guarantee stems from the fact that any current state rule or law is subject to the vagaries of the state legislature, which could easily undo any current exemption outage reports may have under the state’s open-record laws.”); 2011 AT&T Comments at 22; Comments of AT&T Inc., ET Docket No. 04-35; RM-11588 at 3-5 (Mar. 4, 2010) (2010 AT&T Comments); Reply Comments of AT&T Inc., ET Docket No. 04-35; RM-11588 at 2-3 (Mar. 19, 2010) (2010 AT&T Reply).

⁶⁹ See 2004 *Network Outage Reporting Order* at para. 3 (“This [outage] data, though useful for the analysis of past and current outages in order to increase the reliability and security of telecommunications networks in the future, could be used by hostile parties to attack those networks, which are part of our Nation’s critical information infrastructure. The disclosure of outage reporting information to the public could present an unacceptable risk of more effective terrorist activity. We therefore will treat the information that will be provided as confidential.”); see also 2015 AT&T Comments at 25; 2010 AT&T Comments at 1-5.

⁷⁰ See Comments of the Department of Homeland Security, ET Docket No. 04-35 at 14-15 (June 2, 2004) (“Depending on the disruption in question, the errant disclosure to an adversary of this information concerning even a single event may present a grave risk to the infrastructure. The potential availability of all reports, across all of the platforms proposed in the Commission’s Notice, could provide a potential adversary with a virtual road map targeting network stress points and vulnerabilities and a field guide to defeating ‘best practices’ and protective measures. . . . Safeguarding this information – especially the location, root cause, provider and other sensitive information – should be a paramount consideration in the final rules adopted by the Commission.”); see also 2010 AT&T Reply at 4.

expectations about transparency, also evolve.”⁷¹ If anything, we are more acutely aware today than ever before of the importance of network security as we face increased threats and more sophisticated enemies that aspire to attack us here at home.⁷² To the extent the Commission “evolves” on this issue, it should evolve in the direction of more security, not less.⁷³ As such, we caution the Commission to proceed carefully with any new transparency policy that could put national security and competitively sensitive information at risk.

As AT&T has previously argued, in the event the Commission determines that there is a demonstrated need for states to have state-specific, read-only access to the FCC’s Network Outage Reporting System (NORS), it is essential that the Commission impose stringent and enforceable requirements on states that elect to obtain this access. In its 2015 Comments, AT&T proposed five safeguards that are necessary, at a minimum, if the Commission proceeds with granting access to states.⁷⁴

First, the Commission should require states to certify annually that providers’ outage reports are not subject to any state open-record laws and to notify the Commission within 48 hours if the state’s laws or rules no longer exempt these reports from public disclosure so that the Commission may eliminate that state’s access to the NORS database. If the Commission eliminates a state’s access to its NORS database, it also should require the state to return (or to certify that it has destroyed) any copies of NORS database information its authorized employees may have made. This includes any materials that incorporate data derived from the NORS database. If a state is unwilling to make that certification, the Commission should deny it access

⁷¹ *Further Notice* at para. 145.

⁷² See Ryan Browne, CNN, “Top intelligence official: ISIS to attempt U.S. attacks this year” (Feb. 9, 2016), available at <http://www.cnn.com/2016/02/09/politics/james-clapper-isis-syrian-refugees/> (visited Aug. 25, 2016).

⁷³ See 2010 AT&T Comments at 3.

⁷⁴ See AT&T 2015 Comments at 26-29; see also AT&T 2015 Reply at 11-13.

to the NORS database. In the alternative, the Commission could preempt state open-record laws as they apply to the use and disclosure of any data obtained from the NORS database.⁶⁶ This alternative is administratively simpler for both the Commission and state commissions.

Second, the Commission should impose a limit on the number of state commission personnel who have access to the NORS database. AT&T recommends that this limit be no more than three individuals unless the state can provide adequate justification for more employees. The Commission should require the state commissions to supply the identities of authorized state commission staff and obligate state commissions to keep this information current. The state commissions should require their employees to sign a non-disclosure agreement (NDA) before they may access the NORS database, copies of which should be provided to the Commission. Additionally, each authorized state commission employee should be required to have individual logins and passwords (no generic state commission logins should be allowed). This will allow the Commission to manage and track the usage of the database through appropriate access controls.

Third, the Commission should require states to train their authorized employees on the proper handling of NORS database information and what steps the employee should take if he/she believes the data has been disclosed in violation of those safeguards. States should be required to train their authorized employees before they may access the NORS database and annually thereafter. If a state determines that one of its employees has improperly handled NORS information, the state should be required to notify the Commission within 24 hours of discovery so that the Commission could deactivate that employee's credentials to access the NORS database. The Commission also should require the state commission to perform an investigation of that employee and report the results of its investigation to the Commission and,

possibly, to law enforcement. The Commission should consider suspending that state's access to the NORS database until the Commission receives report of the state's investigation to ensure that the violation was limited to that one employee.

Fourth, the Commission should restrict state commissions' use of the NORS data to evaluating the cause of outages in order to monitor communications network functionality within a state.⁶⁷ The Commission should not permit state commissions to disseminate NORS data absent prior written approval by the Commission. In its request, the state commission must identify the individuals to whom it seeks to provide such data along with an explanation why sharing the data with these individuals furthers the state commission's evaluation of an incident or incidents. With its request, the state commission also should supply copies of non-disclosure agreements (NDAs) signed by the individuals to whom the state commission is requesting approval to provide NORS data. The state commission also should certify that it will require these non-state commission individuals to return the NORS data to it at the completion of the individuals' review.

Fifth, the Commission should condition a state's access to the NORS database on that state agreeing not to impose state-specific outage reporting requirements on reporting entities. If a state is unwilling to certify on an annual basis that it does not have state-specific outage reporting requirements, the Commission should not permit that state access to the NORS database.

Admittedly, this list is extensive but not excessive given what is at stake. AT&T continues to question whether state commissions truly require direct access to the NORS database to fulfill their missions.⁷⁵ Transparency in government's execution of its duties under

⁷⁵ See 2015 AT&T Comments at 25-26.

law is a laudable goal. But it must be balanced against the public interest imperative in securing data related to the network operations that comprise the Nation’s critical information infrastructure. If the Commission nonetheless grants states access to network outage reporting, AT&T respectfully urges the Commission to implement, at a minimum, the safeguards described above.

B. The Current Rules for Interconnected VoIP Reporting Serve the Public Interest.

Reporting metrics. In the *2012 Network Outage Reporting Order*, the Commission sensibly rejected the proposal to impose reporting obligations on interconnected VoIP providers to purportedly measure the “loss of generally useful availability and connectivity,” as measured by packet loss and latency.⁷⁶ The Commission should do the same here. At that time, the Commission recognized that “determining what constitutes a ‘loss of generally-useful availability and connectivity’ in a broadband environment (which includes the environment in which interconnected VoIP service operates) is considerably more complicated than in the legacy network context.”⁷⁷ That is still true today.

As AT&T has explained above,⁷⁸ packet loss and latency are QoS standards that are not appropriately used as outage metrics, even for measuring “loss of generally useful availability and connectivity” (rather than a hard down).⁷⁹ For the same reasons discussed above with regard to these metrics in the broadband context, they likewise fail to satisfy the Commission’s goal “of

⁷⁶ See *2012 Network Outage Reporting Order* at para. 81. Although the Commission previously proposed and rejected a jitter metric, it has not included that in its current proposed rule for interconnected VoIP.

⁷⁷ *Id.* at para. 82.

⁷⁸ See Section II.A.4 above.

⁷⁹ See AT&T 2011 Comments at 23-24; AT&T 2011 Reply at 7-8.

ensur[ing] reliable, resilient, and secure interconnected VoIP service for America's consumers and businesses.”⁸⁰

At the outset, the stated concern is that “[s]ince extending outage reporting to interconnected VoIP, ... the Commission has not received consistent, timely, or sufficiently detailed reporting needed to promote greater interconnected VoIP service.”⁸¹ Rather than imposing unnecessary and ineffective degradation reporting using QoS metrics (potentially compounding the problem), the Commission should focus on the existing hard down requirements and ensuring compliance with the rules.⁸² Given that many interconnected VoIP providers do not have extensive experience with network outage reporting (as AT&T does), a collaborative approach with Commission staff would likely yield more useful data from existing requirements to satisfy the Commission's regulatory goals. This approach (1) ensures consistency of reporting across voice services; (2) minimizes costs because providers already have this reporting in place; (3) narrowly addresses the stated concern without imposing unnecessary burdens; and (4) provides real *outage* data as opposed to flooding the Commission with useless (*i.e.*, non-consumer affecting) QoS information.

Finally, the Commission should maintain the current reporting threshold that parallels reporting for legacy voice services.⁸³ This threshold best creates consistency across voice services, facilitating valid comparisons, and trend analysis. Moreover, providers have already

⁸⁰ *Further Notice* at para. 160.

⁸¹ *Id.*

⁸² AT&T continues to believe that outage reporting for interconnected VoIP is unnecessary and merely extends an outage reporting regime that itself is in need of reform. *See* AT&T 2011 Comments at 17-19; AT&T 2011 Reply at 4-5.

⁸³ *See Further Notice* at para. 166.

invested in systems and personnel to implement the existing rules and therefore changing the threshold would add costs with little or no corresponding public interest benefit.

Reporting process. AT&T wholeheartedly agrees that the Commission should harmonize the reporting process for outages involving interconnected VoIP service with reporting for Legacy Services⁸⁴ but only to the extent that all services become subject to a more streamlined reporting process.⁸⁵ As discussed in more detail above,⁸⁶ such a process will continue to serve the needs of the Commission to ensure “the protection of life and property through robust, functioning, reliable, resilient, and secure communications networks”⁸⁷ while minimizing burdens on providers that divert scarce resources from the critical work of restoring services. As AT&T has repeatedly noted, the Commission performs a valuable (if limited) role in facilitating industry efforts to ensure reliable and resilient services and networks.⁸⁸ But the reporting burdens should be carefully tailored to the legitimate regulatory need in order to minimize costs and eliminate obstacles to efficient restoration. A streamlined process for interconnected VoIP, Legacy Services, and if necessary, broadband strikes the right balance.

C. In No Event Should the Commission Adopt Its Proposal for Reporting of Call Failures in the Radio and Local Access Networks.

In no event should the Commission adopt its proposed reporting of call failures that result from congestion in wireless radio access networks (RAN), and in non-wireless (*i.e.*, wireline and

⁸⁴ See *id.* at para. 161.

⁸⁵ See AT&T 2015 Reply at 13-15.

⁸⁶ See Section II.A.3 above (discussing the need for streamlined outage reporting for broadband, Legacy, and interconnected VoIP services).

⁸⁷ 2016 Network Outage Reporting Order at para. 1.

⁸⁸ See, *e.g.*, AT&T 2015 Comments at 2-3.

VoIP) local access networks.⁸⁹ Despite the fact that the Commission repeatedly refers to facilities as being “out” when congestion meets the proposed threshold, this does not make it so.⁹⁰ In fact, the proposed rules would not capture outages at all and would only capture whether the engineered capacity of a particular facility was exceeded. This happens all the time in a normally functioning network. Indeed, it would be absurd—cost prohibitive and unresponsive to customer demand—to engineer networks to pass every call without regard to circumstances, whether mass calling events or peak usage. The Commission’s proposed metrics, if adopted, would flood the Commission with useless data—telling it nothing about whether customers’ calls were affected at all—while simultaneously creating significant costs of administration and compliance for providers.⁹¹

AT&T’s mission is to efficiently and dynamically manage the network so calls reliably go through for its customers.⁹² This is how AT&T maintains its position as a leader in the market. These results are driven by the constant vigilance of performance and capacity planning engineers who pore through immense amounts of data so that AT&T stays ahead of the demand curve. Additionally, AT&T has engineering teams dedicated to managing resources for planned special events to mitigate anticipated increases in traffic.

Almost all unplanned congestion events are one-off events and fleeting in nature. Any performance data that suggests a trend of congestion will be quickly identified and resolved, as demanded by a competitive market. In reality, unforeseen congestion most commonly is the

⁸⁹ See *Further Notice* at para. 178.

⁹⁰ See *id.*

⁹¹ See 2015 AT&T Comments at 24-25; 2015 AT&T Reply at 8-9.

⁹² See, e.g., Danielle Abril, Dallas Business Journal, “AT&T named top U.S. Investment Hero of 2015 for \$21B domestic spend” (Sep. 29, 2015), available at <http://www.bizjournals.com/dallas/blog/techflash/2015/09/at-t-named-u-s-investment-hero-of-2015-for-21b.html> (visited Aug. 25, 2016).

result of truly innocuous events such as radio call-in contests or traffic jams.⁹³ This is surely not what the Commission had in mind for “situational awareness.” Similarly, for wireline and VoIP calling, congestion caused by mass calling events, such as concerts or robo-dialers, are sporadic and transient, and therefore, any metrics to measure these events will not be a sign of network reliability or the health of AT&T’s infrastructure.

Moreover, as engineered today, performance metrics only allow for aggregated information every 15 minutes. Thus, the proposed rules would require substantial reporting burdens based on two data points. Given the transient nature of congestion, it would be nearly impossible to ascertain the root cause for a congestion event this short. This is also compounded by the fact that since performance data metric delivery networks are not engineered to the resiliency of voice production networks, congestion data is never real-time, and in some cases may be delayed as much as two hours. Re-engineering network metrics to provide more frequent, real-time aggregation for no business purpose, simply to satisfy a regulatory fiat, would be enormously costly and complex.

To be sure, AT&T recognizes that there are occasions where there may be public safety implications to congestion, especially during protracted incidents. But there is a mechanism in already in place to address this need. Time and time again, AT&T has responded quickly and thoroughly to Commission requests for information about incidents.⁹⁴ As noted, AT&T has enjoyed a constructive working relationship with the Commission in this area and AT&T has never hesitated to voluntarily give the Commission information about network health.

⁹³ See 2015 AT&T Comments at 24.

⁹⁴ See, e.g., 2011 AT&T Comments at 14 n.46.

Finally, according to the *Further Notice*, the Commission “recognize[s] that reporting on mass calling events will not prevent them from occurring in the future, but [it] believe[s] there is substantial value in analyzing such events *in hindsight*”⁹⁵ Given that admission, even if the Commission adopts the proposed congestion reporting, there can be no rationale for Notifications and Initial Reports within the timeframes required by the current rules.

It is for these reasons that the Commission should reject its proposed rules (or at a minimum, curtail reporting requirements) and instead maintain the current cooperative approach in which providers voluntarily respond with meaningful data upon request by the Commission for unforeseen incidents that may have material impact on the public’s ability to contact emergency responders.

D. Geography-based Wireless Outage Reporting is Not Needed as a Result of Recent Rule Changes.

The Commission should decline to adopt its proposed rule to “require a wireless provider serving a rural area to file outage reports whenever one-third or more of its macro cell sites serving that area are disabled such that communications services cannot be handled through those sites, or are substantially impaired due to the outage(s) or other disruptions affecting those sites,” or, alternatively, to “requir[e] such reporting upon the disabling of one-half of the macro cell sites in the rural area.”⁹⁶ Even as the Commission proposes yet another new reporting burden, the *Further Notice* recognizes that the just-adopted rule to standardize the method for calculating the number of potentially affected users during a wireless outage addresses the concerns about reporting in areas with disperse populations.⁹⁷ Under these circumstances, the

⁹⁵ *Further Notice* at para. 177 (emphasis added).

⁹⁶ *Id.* at para. 186.

⁹⁷ *See id.* at para. 188.

incremental benefit (if any) could not possibly justify the substantial cost of implementing such a rule. At a minimum, the Commission should wait to see whether the new calculation rule addresses the problem, in full or in part, before adopting a new reporting requirement that will likely prove to be unnecessary and/or redundant.

Moreover, the approach as proposed is unworkable. It may be a simple matter to overlay a county boundary with the locations of a provider's cell sites; however, service in any given county frequently is provided by cell sites located *outside* of the county. It would be administratively burdensome to require wireless providers to attempt to map the serving area of their cell sites in order to determine whether one-third of a county is affected by an outage. This is particularly true since wireless coverage can be changed to accommodate outages thus making it impossible to do that overlay of coverage areas in real time to determine whether a particular outage covers one-third of a county.⁹⁸ For these reasons, if the Commission insists on pushing forward with this unnecessary rule, it must ensure that the reporting requirement is based on cell sites *located* in a rural area, rather than cell sites *serving* a particular rural area.

E. The Proposal to Expand Reporting of Outages Affecting Critical Aviation Information Facilities is Premature.

The Commission should reject its proposal to require "reporting of outages affecting critical aviation information facilities that are not airport-based, either as a function of their status as TSP Level 3 or 4 facilities, or upon some other basis."⁹⁹ As the Commission acknowledged, before the National Communications System (NCS) was eliminated in 2012, none of its member agencies ever identified which of their facilities should be deemed special

⁹⁸ See AT&T 2015 Reply at 10.

⁹⁹ *Further Notice* at para. 192.

offices or facilities.¹⁰⁰ Nor did the NCS ever forward to the Commission any outage reports that special offices and facilities were required to report to NCS.¹⁰¹ For that reason, AT&T argued that Commission’s rules demonstrated that a “special offices and facilities” outage reporting rule has little to no practical utility and it should be eliminated.¹⁰²

Nonetheless, the Commission adopted the new rule requiring reporting for special offices and facilities, newly defined as Level 1 or 2 enrollees in the [TSP] program, based on the conclusion that “[r]eporting on ‘special offices and facilities’ (as amended) is an important component in [the Commission’s] efforts to promote public safety.”¹⁰³ Although there has been an unused rule in place for roughly two decades, this amended rule now places significant new reporting burdens on carriers. Recognizing as much, the Commission allowed 18 months from OMB approval for implementation—a timeline that has not even started yet.¹⁰⁴ But before the Commission and the industry have even had a chance to determine through experience whether the Commission’s predictions about the utility and costs of this regulation are accurate and reasonable, the Commission is already proposing to expand the requirements as described above. That is premature. The Commission should allow carriers to implement the new special offices and facilities rule, as envisioned in the *2016 Network Outage Reporting Order*. Only then (and with some experience) could the Commission do any credible cost-benefit analysis of further expanding the scope of the rule and its associated burdens. Now, it would be guesswork, at best.

¹⁰⁰ See *2016 Network Outage Reporting Order* at para. 63.

¹⁰¹ See *id.*

¹⁰² See 2015 AT&T Comments at 19.

¹⁰³ *2016 Network Outage Reporting Order* at para. 63.

¹⁰⁴ See *id.* at para. 64.

If, however, the Commission moves forward with its proposal to require reporting for civil aviation facilities at TSP Levels 3 or 4, the rule should be limited to facilities actually enrolled in the TSP program. As AT&T previously explained, providers simply do not know which facilities are “eligible” for the TSP program and requiring providers to remain current on which facilities are “eligible for” the TSP program is likely to impose a significant administrative burden on providers, with an enforcement action looming if, even after good faith efforts, they are unable to maintain accurate and/or up-to-date information.¹⁰⁵ Basing the rule on actual enrollment would be a bright-line for carriers to implement. Any other approach would not be administrable.

III. CONCLUSION

AT&T respectfully requests that the Commission take action in accordance with AT&T’s recommendations outlined above to ensure that any modification the Commission makes to its Part 4 network outage reporting rules is designed capture customer impact and provide the Commission with an accurate view of the health of the communications network.

Respectfully Submitted,

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¹⁰⁵ See 2015 AT&T Comments at 21; 2015 AT&T Reply at 2.

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